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Review of the WTO Compliance of Subsidy Measures in the U.S. and EU Chip Acts and China's Countermeasure Strategies

Siyu Liu*

Department of Law, School of Humanities and Law, North China University of Technology, Beijing 100144, China

**Corresponding author: Siyu Liu.*

Abstract

Since 2022, the United States has enacted the CHIPS and Science Act, and the European Union has adopted the European Chips Act. Both have implemented massive fiscal subsidies, tax incentives, and other support measures to expand domestic semiconductor manufacturing capacity, while also incorporating so-called "guardrail clauses" that restrict investment in China. Taking WTO rules as the analytical framework, this paper systematically examines the WTO compliance of these measures based on the Agreement on Subsidies and Countervailing Measures (SCM Agreement) and the non-discrimination principles under GATT 1994. On this basis, the paper proposes that China should establish a multi-dimensional response system to address the impact of unilateralism on the global semiconductor industry chain and the multilateral trading system.

Keywords

U.S. and EU Chip Acts, WTO compliance, SCM Agreement, non-discrimination principle, subsidy measures, China's countermeasure strategies

1. Introduction

1.1 Research Background and Problem Statement

Since 2022, the United States and the European Union have successively introduced targeted industrial policies. The United States enacted the CHIPS and Science Act, while the European Union launched the European Chips Act. The core commonality of these policies lies in their use of massive financial support to reconstruct domestic semiconductor industry chains. However, such financial support is accompanied by strict "guardrail clauses." For example, companies receiving U.S. subsidies are required to make a written commitment that, for a period of 10 years from the date of receiving the subsidy, they will not expand advanced chip manufacturing capacity in China or other "countries of concern." Violation of this commitment triggers legal liability for full clawback of the subsidies.

The central question is: Do these chip subsidy measures, introduced by the United States and the European Union in the name of national security and strategic autonomy, comply with the international obligations they have undertaken under the WTO framework?

1.2 Research Approach and Structure of the Paper

First, the paper dissects the types of subsidy measures in the CHIPS and Science Act and the European Chips Act, clarifying the specific content of core provisions such as direct financial grants, tax incentives, and investment restrictions. Second, based on the Agreement on Subsidies and Countervailing Measures (SCM Agreement), the paper analyzes the definition and classification of subsidies, and, in combination with the most-favored-nation treatment principle, comprehensively examines the WTO compliance of the U.S. and EU measures. Finally, drawing on the conclusions of the compliance analysis, the paper constructs a response framework for China.

1.3 Research Methods

Legal interpretation, literature review, case study analysis, and comparative research methods.

2. Content, Characteristics, and Strategic Intent of Subsidy Measures in the U.S. and EU Chip Acts

2.1 Analysis of Subsidy Measures in the U.S. CHIPS and Science Act

The CHIPS and Science Act [1] directly authorizes up to $52.7 billion in federal funding for semiconductor manufacturing, research and development, and workforce development, and provides an investment tax credit of up to 25%. The “One Big Beautiful Bill Act” [2] passed in July 2025 further increased the tax credit rate.

The Act establishes a comprehensive support system covering R&D, manufacturing, and talent cultivation. In the R&D phase, substantial funds are allocated to establish institutions such as the National Semiconductor Technology Center, with a focus on frontier technology development. At the same time, the tax credit policy offers enterprises a tax reduction of up to 25% on semiconductor R&D expenditures. Subsidy funds are preferentially directed toward companies building advanced process fabs in the United States, such as TSMC and Samsung, but recipients must meet a series of specific conditions.

The most prominent feature of the subsidies is the attachment of stringent restrictive clauses: recipient companies are prohibited from making significant investments in China or other “relevant countries” for the next 10 years. Restrictions on investment become permanent if they involve expansion of advanced process capacity. Enterprises are required to publicly disclose detailed financial data and supply chain information and accept full oversight by the U.S. government. The use of subsidy funds is linked to employment targets; failure to meet committed job creation numbers may result in suspension or clawback of subsidies.

2.2 Analysis of Subsidy Measures in the EU European Chips Act

The European Chips Act [3] adopts an approach of institutional integration and division of labor and collaboration. Through a model combining EU-level coordination and implementation by member states, it has mobilized €43 billion in public and private investment.

The Act is structured around three main pillars: First, the “European Chips Initiative” focuses on research and innovation, forming a pattern in which the Netherlands specializes in lithography equipment, Germany concentrates on automotive chips, and Italy emphasizes silicon carbide. Second, it prioritizes supply security, with the EU establishing unified and clear state aid rules to standardize the intensity and scope of subsidies across member states. Third, it establishes an “early warning and response” system, with part of the subsidy funds used to build a global capacity monitoring network and a crisis toolbox, enabling coordinated joint procurement among member states during chip shortages to safeguard supply in critical sectors.

2.3 Common Characteristics, Comparative Differences, and Strategic Intent Analysis of the Two Acts

Both Acts share the same core objective: enhancing domestic industrial resilience. The United States aims to achieve 20% of global chip production capacity by 2030, while the EU plans to increase its share from 10% to 20% by 2030. Both recognize the fundamental characteristics of the semiconductor industry—

technology dominance and production capacity as the foundation—and therefore direct subsidy funds toward both R&D in processes of 5 nm and below and the construction of chip manufacturing facilities, avoiding imbalance between R&D and manufacturing.

Although the goals converge, the subsidy measures exhibit significant differences, particularly in terms of funding structure and attached conditions, which differ markedly.

The U.S. restrictions are comprehensive and severe, extending from investment controls to equipment and technology restrictions.

(1) Investment and capacity restrictions: Explicit prohibition on recipient companies expanding advanced chip capacity in China for 10 years.

(2) Equipment procurement restrictions: The recently proposed CHIPS EQUIP Act [4] seeks to prohibit companies receiving CHIPS Act subsidies from purchasing certain semiconductor manufacturing tools owned or controlled by Chinese entities for a period of 10 years, aiming to exclude China's semiconductor equipment manufacturing from the U.S.-led supply chain.

(3) Export controls: Through the Bureau of Industry and Security (BIS), continuous upgrades of export controls on advanced computing chips and semiconductor manufacturing equipment to China.

In contrast, the EU has adopted a relatively cautious approach, focusing primarily on economic security. The publicly disclosed "guardrail" clauses mainly concern investment and capacity expansion restrictions; no comprehensive procurement ban on Chinese-made equipment comparable to that of the United States has been introduced so far.

In essence, the subsidy measures in both Acts are not merely industrial support policies; they serve as instruments of each party's broader global strategy. Their strategic intentions reveal a pattern of shared origins but divergent paths, reflecting a contest for global discourse power.

3. Review of the WTO Compliance of Subsidy Measures in the U.S. and EU Chip Acts

3.1 Overview of the WTO Subsidy and Countervailing Rules System

3.1.1 Core Disciplines of the Agreement on Subsidies and Countervailing Measures (SCM Agreement)

(1) Definition of a Subsidy

Article 1 of the SCM Agreement [5] provides a clear and operational definition of a subsidy under the multilateral trading system. A subsidy exists only when all three conditions are met simultaneously:

First, there is a financial contribution: This includes direct provision of funds by the government or a public body, foregoing or not collecting revenue otherwise due, provision of goods or services, or entrusting or directing a private body to carry out the aforementioned actions. The core element is governmental support in the form of resources provided to specific recipients.

Second, a benefit is conferred: The financial contribution must confer a benefit on the recipient, meaning the recipient obtains treatment "more favorable than under market conditions," thereby gaining an economic advantage that would not otherwise be available from the market.

Third, the contribution is made by a government or public body: "Public body" here extends beyond governmental departments to include entities controlled by the government or exercising governmental authority.

(2) Specificity

Only subsidies defined under Article 1 that also meet the specificity requirements under Article 2 [6] of the SCM Agreement are subject to the disciplines of the Agreement. A subsidy falls within the scope of the SCM Agreement only when it is targeted at specific enterprises, industries, or regions and affects trade competition. Specificity has two main types:

De jure specificity: Subsidies explicitly limited to certain enterprises or categories of enterprises as stipulated in legal texts or policy documents. Specificity can be directly determined through textual interpretation.

De facto specificity: Subsidies that appear generally available on their face but are, in practice, granted to only a limited number of enterprises or industries, with the government exercising selectivity or foreseeability in such allocation. The SCM Agreement lists [7] factors for determining de facto specificity, including the disproportionate use of the subsidy (e.g., a small number of enterprises receiving the majority of funds), subjective eligibility criteria, and deliberate governmental selection of recipients.

The SCM Agreement also provides for a "non-specificity exception" [8]: Subsidies that are broadly available to all enterprises or industries within a country's territory are not specific and are exempt from the disciplines on actionable subsidies.

(3) Classification of Subsidies and Corresponding Disciplines

Prohibited subsidies: These are subsidies that directly distort international trade flows and seriously prejudice the interests of other Members. Article 3 [9] of the SCM Agreement imposes a blanket prohibition with no exceptions. There are two types: (i) export subsidies, which are contingent (legally or in fact) upon export performance; and (ii) import substitution subsidies, which are contingent upon the use of domestic goods over imported goods. Affected Members may bring a WTO complaint or directly impose countervailing measures.

Actionable subsidies: Under Article 5 [10] of the SCM Agreement, these are not outright prohibited but may be challenged if they cause "adverse effects" to the interests of another Member, including injury to the domestic industry of another Member, nullification or impairment of benefits under tariff concessions, or serious prejudice to the interests of another Member [11]. The core of regulation lies in the simultaneous presence of benefit, injury, and causation. If the subsidizing Member can demonstrate that the subsidy pursues legitimate policy objectives without causing material injury, it may be exempt from countermeasures.

Non-actionable subsidies have already expired.

3.1.2 Composition of the Non-Discrimination Principles under GATT 1994

GATT 1994 serves as the foundational set of rules for trade in goods under the WTO. It regulates through the most-favored-nation (MFN) treatment and national treatment obligations, requiring Members to avoid differential treatment between different Members or between domestic and foreign enterprises when applying subsidy policies or taking countervailing actions.

Most-favored-nation treatment: The core of MFN treatment [12] is "equal treatment externally." Any advantage, favor, privilege, or immunity granted by a Member to goods from or destined for any other country must be accorded immediately and unconditionally to like goods from or destined for all other Members. In the context of subsidies and countervailing measures, this applies to all subsidy-related and countervailing actions concerning trade in goods, including conditions for granting subsidies, initiation standards for countervailing investigations, and rates of countervailing duties. The central requirement is to prohibit discriminatory subsidies and discriminatory countervailing measures. Exceptions exist, such as regional trade agreements, generalized system of preferences, and national security exceptions, allowing limited deviations from MFN treatment provided they comply with WTO rules.

National treatment: National treatment [13] requires that imported goods receive treatment no less favorable than that accorded to like domestic goods. This primarily applies to subsidy policies ensuring equal treatment between domestic and foreign enterprises, particularly measures affecting the internal sale, offering for sale, purchase, transportation, distribution, or use of imported goods. For example, production subsidies, R&D subsidies, or tax exemptions granted to domestic enterprises but not equally extended to domestic distributors or users of imported goods may constitute a violation. Key elements for determination include: (i) the definition of "like products," typically based on physical characteristics, end-uses, consumer preferences, tariff classifications, etc.; and (ii) the "no less favorable treatment" requirement—not mandating identical treatment but prohibiting discriminatory treatment against imports. For instance, if domestic producers of imported goods meet the same conditions as domestic enterprises, they should have equal eligibility for R&D subsidies.

3.1.3 Interpretive Challenges of the National Security Exception under Article XXI of GATT 1994

Article XXI allows Members to take trade measures inconsistent with WTO obligations when "necessary for the protection of its essential security interests." The vagueness of the provision and the risk of abuse in practice have created significant interpretive and applicational dilemmas.

Textual ambiguity: GATT 1994 Article XXI [14] permits any action that a Member "considers necessary for the protection of its essential security interests" relating to "trade in fissionable materials, arms, ammunition, war implements, or trade directly or indirectly for supplying military establishments," as well as "measures taken in time of war or other emergency in international relations." Terms such as "essential security interests" and "other emergency in international relations" lack clear definitions, allowing Members broad self-interpretation and leading to inconsistencies in application. In practice, Members frequently invoke "national security" to circumvent WTO obligations. Modern national security has extended to non-traditional areas such as cybersecurity, biosecurity, and technological sovereignty, yet the provision offers no explicit guidance on whether these fall within its scope.

Moreover, national security measures often involve classified information, enabling Members to refuse to submit relevant evidence on grounds of "confidentiality," making it difficult for the Dispute Settlement Body (DSB) to substantively review the "necessity" of such measures.

3.2 Compliance Analysis of Chip Act Subsidy Measures under the SCM Agreement

3.2.1 Determination of "Financial Contribution" and "Benefit"

Articles 1 and 2 [15] of the SCM Agreement clearly define the constitutive elements of a "subsidy," requiring simultaneous satisfaction of "financial contribution," "benefit conferred," and "specificity." The chip subsidy measures of the EU and the United States satisfy the basic definition of a subsidy under the SCM Agreement in terms of "financial contribution" and "benefit."

Regarding "financial contribution," both Acts provide such contributions through direct fund transfers and other forms. The U.S. CHIPS and Science Act explicitly allocates $52.7 billion in dedicated funds for chip manufacturing subsidies, of which $39 billion directly supports domestic chip production lines, supplemented by tax credits valued at approximately $24 billion, allowing chip manufacturers to enjoy a 25% tax credit on equipment purchases. The EU Chips Act establishes a "Chips Fund" totaling €43 billion, including €11 billion in direct public funding for R&D and capacity expansion in chip design, manufacturing, and packaging/testing, with the remainder provided through low-interest loans, guarantees, and other financing facilities from the European Investment Bank.

Under Article 1.1(a) [16] of the SCM Agreement, the measures in both the U.S. and EU Chip Acts fully fall within the regulatory scope of this provision. At the "benefit" level, the SCM Agreement [17] emphasizes that a benefit refers to a competitive advantage superior to normal market conditions. In the U.S., direct cash subsidies and tax credits provide the most tangible benefits to enterprises; in the EU, Member States offer state aid for pioneering facilities and expedited approval mechanisms, clearly conferring advantages far exceeding market competition levels and meeting the SCM Agreement's criteria for "benefit."

3.2.2 Specificity Analysis

Specificity is the key criterion under the SCM Agreement for distinguishing actionable from non-actionable subsidies. Article 2 [18] primarily identifies specificity in forms such as "enterprise-specific," "industry-specific," "regional-specific," and "product-specific."

In terms of industry specificity, subsidies under both Acts are primarily limited to the semiconductor industry, with further focus on core segments such as chip design and advanced process manufacturing, constituting "subsidies targeted at a specific industry" under Article 2. The U.S. limits subsidy recipients to "enterprises engaged in advanced semiconductor R&D, manufacturing, and related equipment production"; the EU's "Chips Strategy Blueprint" concentrates subsidies on "strategically important advanced chips" and "first-of-a-kind facilities." Subsidies delineated by industry thus constitute industry-specific subsidies under the SCM Agreement.

Although neither Act explicitly limits subsidies to specific enterprises, high investment thresholds, technical standards, and other conditions create de facto enterprise specificity. This is likely to meet the criteria for de facto specificity under Article 2.1(c) [19]. The U.S. provision prohibiting subsidy funds from being used to build advanced production lines in China or other countries further highlights the targeted nature of the subsidies, resulting in discrimination against specific enterprises and regions.

3.2.3 Serious Prejudice

The core objective of the U.S. and EU subsidies is to expand domestic capacity, potentially leading to global overcapacity risks. The United States aims to raise its domestic chip capacity share to around 20% globally by 2030, while the EU targets an increase to 20%.

Article 6 [20], paragraph 3(b) of the SCM Agreement explicitly states that "the effect of the subsidy is to displace or impede imports of a like product of another Member into a third country market" constitutes serious prejudice. This provision directly brings the U.S. measures—with their guardrail clauses—within scope. The EU, through high investment thresholds and technical standards, creates de facto enterprise specificity, effectively hindering certain enterprises from entering the European market and satisfying Article 6 [21], paragraph 3(a): "the effect of the subsidy is to displace or impede imports of a like product of another Member into the market of the subsidizing Member," which is deemed serious prejudice.

3.3 Compliance Analysis of "Guardrail Clauses" in the Chip Acts under the Non-Discrimination Principles of GATT 1994

3.3.1 Inherent Discriminatory Nature of the "Guardrail Clauses"

Under Article I:1 of GATT 1994—the Most-Favored-Nation Treatment Principle—"any advantage, favor, privilege or immunity granted by any Member to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other Members." The "guardrail clauses" in the U.S. Chip Act impose differential restrictions based on investment destination, constituting classic country-specific discrimination.

The U.S. CHIPS and Science Act [22] requires recipient enterprises to refrain from building or expanding advanced chip production lines in China, Russia, or other "countries of concern" for the next 10 years, or face full subsidy clawback. While the EU Chips Act [23] does not explicitly name countries, it indirectly implements guardrail effects through mechanisms such as the Foreign Subsidies Regulation and supporting rules, restricting subsidy recipients from transferring core capacity and technology to other countries. Restrictions conditioned on national categories exclude specific Members, violating the MFN principle.

3.4 Analysis of the Possibility of Defenses under Relevant Exception Provisions

3.4.1 Boundaries of "Essential Security Interests"

Article XXI of GATT 1994 [24] explicitly limits the application of exceptions to scenarios involving "war or other emergency in international relations" or measures "necessary for the protection of essential security interests" in critical material supplies. The key boundary is that "essential security interests" refer to the most core interests of national sovereignty and survival, not commercial competition in industries.

The essence of global semiconductor competition is commercial rivalry over technology and markets. The "supply chain security" claimed by the U.S. and EU is about competing for industrial dominance rather than responding to genuine, imminent security threats. In the Russia–Traffic in Transit case [25], the panel made it clear that while Members have the right to self-define essential security interests, they must do so in good faith, and measures must bear a reasonable relationship to the claimed security interests; economic or industrial interests cannot be repackaged as security interests [26]. The panel in that case accepted Russia's invocation primarily due to the objective context of heightened international tensions between Russia and Ukraine in 2014. In contrast, the U.S. and EU actions in the chip sector lack any substantial emergency in international relations imposed by the "concerned countries."

3.4.2 Non-Self-Judging Nature of the "It Considers Necessary" Clause

The phrase "which it considers necessary" in Article XXI of GATT 1994 does not grant Members unlimited self-judging authority. In Russia–Traffic in Transit (DS512) [27] and Saudi Arabia–Intellectual Property Rights (DS567) [28], panels clarified that a Member's judgment of "necessity" is constrained by the principle of good faith under Article 26 of the Vienna Convention on the Law of Treaties [29]. There must be a "reasonably demonstrable rational connection" between the measures and the claimed security objectives; mere subjective assertion cannot circumvent core obligations.

The rational connection between the U.S. and EU measures and their claimed "supply chain security" is weak: The U.S. requires subsidy recipients to refrain from building or expanding advanced lines in China for 10 years, yet China is the world's largest semiconductor consumption market [30], and enterprises' actions there are market-driven commercial decisions with no direct causal link to "U.S. national security." Based on the ruling in the Saudi Arabia case, if milder alternative measures exist but are not adopted, "necessity" does not hold. Choosing extreme measures directly fails the necessity test, rendering the "it considers necessary" claim untenable.

3.4.3 Constraints on Abuse of the National Security Exception

Members must not use exception clauses as tools to evade WTO obligations. Where the substantive aim of measures is industrial protection rather than safeguarding national security, it constitutes abuse of the exception and entails responsibility.

The industrial protection attributes of the U.S. and EU chip measures are evident, with only a weak link to national security, making their defenses difficult to sustain under three constraints: First, industrial protection disguised as security. The CHIPS and Science Act [31] explicitly states that its core objective is "to provide funding for domestic production of semiconductors and to authorize various programs and activities of federal scientific agencies." "National security" is merely ancillary language. The European Commission regards "increasing domestic capacity share" as a core indicator [32], further confirming the industrial protection orientation. Second, lack of factual support for security linkage. Assertions are subjective inferences without submission of concrete evidence of threats to national security. Per the Saudi Arabia case (DS567) [33], subjective conjecture cannot justify invocation of the exception. Third, damage to core WTO principles. Allowing the U.S. and EU to implement massive specific subsidies and discriminatory investment restrictions under the guise of "national security" could trigger a global semiconductor "subsidy race," directly undermining the status of the SCM Agreement and non-discrimination principles.

4. Construction of China's Response Strategies within and beyond the WTO Framework

4.1 Legal Response: Challenges under the WTO Dispute Settlement Mechanism

The WTO dispute settlement mechanism [34] remains the core avenue for rights protection. However, China faces three major challenges when initiating complaints:

First, evidentiary difficulties. Proving the existence of "specific subsidies," "serious prejudice," and "abuse of the security exception" by the United States and the European Union is challenging, as these parties are likely to refuse disclosure of key evidence.

Second, lengthy procedural timelines amid irreversible harm. WTO rulings typically require 1–2 years, yet the subsidies have already been implemented and are taking effect. Moreover, the current paralysis of the WTO Appellate Body makes it difficult to secure final and binding rulings.

Third, weak enforcement guarantees. WTO rulings rely on voluntary compliance. If the United States or the European Union refuses to comply, China may, pursuant to Article 22 of the DSU [35], seek authorization for cross-retaliation (such as targeted tariffs). This requires precise calculation of the scope of retaliation and coordination with other Members to form effective supervisory pressure.

4.2 Trade Countermeasures: Countervailing Measures Based on Domestic Law and WTO Rules

The WTO permits targeted countermeasures. China's Regulations on Countervailing Measures and related laws provide domestic legal bases, but implementation must adhere to the principles of legality, moderation, and precision.

First, precisely initiate countervailing investigations. For subsidized chips exported from the United States and the European Union to China, investigations should be launched under the Regulations on Countervailing Measures [36] to determine the amount of subsidization and injury to the domestic industry, followed by the imposition of duties in accordance with the law. This safeguards enterprise rights while ensuring results meet WTO standards of objective evidence [37].

Second, optimize the scope and intensity of countermeasures. Focus on weak links in the U.S. and EU chip industries, targeting products with high dependence on the Chinese market. Balance effectiveness against impacts on downstream domestic industries, in full compliance with the WTO proportionality principle.

Third, establish coordinated regulatory mechanisms. Leverage the Anti-Unfair Competition Law [38] and the Anti-Monopoly Law [39] to investigate and address practices such as predatory pricing, dumping, and abuse of dominant market positions by U.S. and EU enterprises, thereby forming synergies among countervailing, anti-dumping, and anti-monopoly actions.

4.3 Industrial Self-Reliance: Building an Autonomous and Controllable Semiconductor Industry Chain and Supply Chain

The fundamental solution lies in enhancing endogenous competitiveness and constructing an autonomous and controllable supply chain, while ensuring industrial policies comply with WTO rules and avoiding subsidy dependence. Strengthen core technology R&D, with a focus on critical areas such as EDA tools and lithography equipment. Increase fiscal support for basic research and adopt non-specific subsidies. Promote coordinated development across the industry chain, leveraging the leading role of anchor enterprises to build collaborative innovation systems. Utilize industrial funds to guide private capital, forming an investment and financing system that combines government guidance with market dominance, thereby harnessing the advantages of China's socialist market economy. In addition, intensify talent cultivation and open innovation. While safeguarding national security, strengthen technological exchanges and cooperation with countries such as South Korea and the Netherlands, striking an appropriate balance between openness and autonomy/controllability.

4.4 Rule-Shaping: Actively Participating in Negotiations on New International Economic and Trade Rules

Promote fair semiconductor trade rules through negotiations to counter unilateralism. First, deepen engagement in multilateral platforms. At the WTO, collaborate with BRICS countries and others to push for revisions to the SCM Agreement, clarifying the definition of subsidies and boundaries of security exceptions, and advocate for the establishment of a dedicated working group on semiconductor rules. Second, participate actively in regional agreement negotiations. In frameworks such as RCEP and CPTPP, proactively propose semiconductor-related rules, advocating provisions that prohibit discriminatory subsidies and promote technological cooperation. Third, establish bilateral cooperation mechanisms. Negotiate agreements with major chip producing and consuming countries such as South Korea and Japan on "avoiding subsidy competition" and "capacity coordination." Through sustained bilateral negotiations, press the United States and the European Union to relax technology export restrictions and preserve the integrity of the global industry chain.

5. Conclusion

5.1 Main Research Conclusions

Using WTO rules as the core analytical framework, this paper systematically examines the compliance issues of the U.S. and EU chip subsidy measures and proposes a multi-dimensional response strategy for

China. The principal conclusions are as follows: First, the subsidy measures in the U.S. and EU chip acts satisfy the constitutive elements of a subsidy under the SCM Agreement, exhibiting clear industry specificity and de facto enterprise specificity, causing serious prejudice to the global chip industry and constituting actionable subsidies. Second, the "guardrail clauses" in the acts violate the core requirements of the non-discrimination principles under GATT 1994, breaching most-favored-nation treatment through country-specific restrictions. Third, any defense by the United States and the European Union invoking the national security exception under GATT Article XXI lacks legitimacy. Fourth, China should construct a comprehensive system encompassing "multilateral rights protection, domestic countermeasures, industrial self-reliance, and rule-shaping." While safeguarding rights through WTO mechanisms, China must strengthen endogenous competitiveness and enhance its discourse power in international rule-making.

The U.S. and EU chip acts represent a challenge from unilateralism to multilateral trade rules. Their non-compliant measures not only disrupt the stability of the global semiconductor industry chain and supply chain but also undermine the foundation of the WTO-centered multilateral trading system.

5.2 Research Limitations and Future Prospects

Research limitations: First, certain data on U.S. and EU subsidies are classified, limiting the precision of analysis that relies on publicly available information. Second, the dynamic evolution of WTO case law may affect existing interpretations. Third, the proposed countermeasures focus on the strategic framework, with limited exploration of detailed implementation measures.

Future prospects: First, continue dynamic tracking of the implementation of the chip acts and relevant WTO rulings to revise conclusions in a timely manner. Second, deepen the operational feasibility of the proposed strategies. Third, broaden the research perspective to explore linkages between the semiconductor industry and emerging rules in areas such as cross-border data flows and technical standards.

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Conflicts of Interest

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